PUBLIC WORKS Pipeline



Your Drinking Water Is Certified Safe

This issue of *Public Works Pipeline* contains the City's annual water quality report, which includes complete information on the monitoring done on Edina's drinking water last year. Morningside Neighborhood residents who receive their water from the City of Minneapolis will find information detailing the quality of Minneapolis' water on pages 11-13.

A detailed account of Edina's water quality is in this issue, including test

results on all contaminants deemed by the Minnesota Department of Health to pose a health risk.

The City's goal is to provide residents with water that surpasses both state and federal requirements for safety and quality. This year's report shows that Edina's water surpasses regulatory standards on all counts.

For more information, contact Edina Public Works at 952-826-0375.

2017 Water Report For the Year 2016

See page 8

Neighborhood Street Reconstruction

See page 6



A piece of equipment purchased last year is saving the City much time and money.

In June 2016, the City of Edina Public Works Department purchased a new excavator to replace an aging backhoe that was purchased in the late 1990s.

The new tracked Volvo EC160 excavator cost \$170,000 and is the first of its kind to be purchased by the City. The excavator is a multidivisional, multi-use machine, helping with street reconstruction projects, park maintenance, water resource management and utility maintenance.

"We bought it to replace our rubbertire backhoe," said Utility Supervisor Gary Wells. "The new excavator will be used for things like water main repairs, sanitary sewer repairs, storm water drain and outfall repairs, storm water drains and removing sediment from our ponds and lakes."

Among its benefits is the range of swing. Where the old backhoe couldn't swing a full 180 degrees, the new excavator will. The increased range of swing will offer more versatility to the projects the City is able to manage.

"On county road water main breaks, we had to keep open a certain width for traffic. Because of that, we had to hire contractors that had an excavator like this to come in and do the job in order to avoid affecting both lanes of traffic," said Wells. "Now, we can use our own excavator and stack a dump truck right behind it to dump into."

Public Works Coordinator Dave Goergen estimates that, based on contractor costs alone, the excavator will recoup the costs associated with it in two years.

"This one has more applications. We can dig deeper and reach further. It has a larger bucket, so it's more efficient and quicker and it's more powerful," said Goergen. "It's got a 15- to 20-year lifespan, so it's money well spent."

The excavator will cut back employee costs as well. One of the projects it was used for last summer was the redevelopment of the Rosland Park playground.
The excavator pulled out old footings using a new clam attachment.

"The operator that we usually have running it, Nate Kaderlik, is very good at running this equipment and is very precise.
With our older excavator, we would have had to dig all the way around each footing and then pull them out with a chain," said Wells. "Instead, we removed four or five of them in less than an hour. Before this, it would have been a wholeday project to remove that many."

The new piece of machinery will also have an impact on the health of the City's lakes and ponds. Water Resource Coordinator Jessica Wilson is looking forward to what the equipment can do to keep lakes clean.

"It's common in an urban community to have a storm sewer network to provide

flood protection; water is quickly moved into local lakes, ponds, wetlands and streams. Over time, sediment and trash can build up at storm sewer outlets and occasionally beaver dams are constructed near outlets that can clog the storm sewer network," explained Wilson. "Regularly cleaning out this material helps to make sure the system performs its primary job of flood protection and also removes pollutants so they can be disposed of properly."

"The new excavator will be used for things like water main repairs, sanitary sewer repairs, storm water drain and outfall repairs, storm water drains and removing sediment from our ponds and lakes."

> Because the excavator is tracked, it can be used to drive up to the edge of a lake and dredge the bottom of the pond for sediment or help remove debris that has accumulated naturally or from flooding.

"This machine will allow us to walk on the soil where the rubber-tired excavator couldn't go. We can remove sediment, like sand that was used in the past during the winter or beaver dams after the beaver has been caught and removed." said Wells.

For more information, contact Wells at 952-826-0316 or gwells@EdinaMN.gov.



It happens every year. A homeowner notices the shower and sinks aren't draining. Or worse yet, the toilets are backing up.

They call the City of Edina to report a possible sewage backup. Crews come out and confirm there's a problem.

Frequently then comes the bad news: It's on the home's side of the pipes, which means the homeowner is responsible for the cost of repairs and cleanup. The bills can run into the thousands. Not to mention the hassles of tracking down a reputable repair company and cleanup crew if needed.

To help homeowners, the City of Edina has joined a National League of Cities program that offers insurance for water and sewer lines. This Service Line Warranty Program is the only one endorsed by the City. More than 300 municipalities in the country use the program, including St. Louis Park and Richfield.

"In the past 20 years, there have been a lot of independent programs that have offered residents insurance of this nature, but they were never backed by a huge organization," said Edina Public Works Director Brian Olson.

To learn more about the Service Line Warranty program or sign up, visit slwofa.com or call 866-425-6221.

How does it work?

People pay a fee — less than \$6 a month per utility line — for coverage. When a problem arises, they call Public Works to determine if the leak is from the City's infrastructure or is the responsibility of the homeowner. If it is part of the home's system, the homeowner calls a toll-free number available 24 hours a day. The program then calls out a licensed local contractor to take care of it.

"It's actually a good policy that if you have any leak in your system anywhere, they would hire a certified contractor or repair service to get it fixed," Olson said. There are no deductibles or service fees.

Why should I get this?

If there is a problem and you don't have insurance, repairs cost \$1,300 to \$4,000 and sometimes more, according to Utility Service Partners, Inc., which administers the program.

The City averages more than 180 calls a year for water and sewer line problems. More than half end up being the homeowner's responsibility. For water lines, the City's responsibility ends at the curb stop, around 10 feet into the property. For sewer, it ends at the main in the street, a much longer distance.

What could go wrong with my lines?

Age, ground shifts, fluctuating temperatures, tree root penetration and other factors can damage or break lines. In addition, household sewer lines may become clogged by flushing inappropriate items down toilets or drains.

How do I sign up?

To learn more about the Service Line Warranty program or sign up, visit slwofa.com or call 866-425-6221. Some Edina residents may have already heard about the program through a notice sent to their homes.

Neighborhood Street Reconstruction Under Way In Edina

By Kaylin Eidsness & Debbie Townsend

Street reconstruction is under way in several Edina neighborhoods. While not convenient, the work is necessary as the streets and the infrastructure underneath have reached their useful life.

"The streets and infrastructure that we're currently reconstructing are at least 50 or 60 years old," said Assistant City Engineer Carter Schulze. "Once the projects are finished, the materials should last another 60 years – especially with proper maintenance."

Construction should wrap up in October and November this year, with any warranty work being completed in spring 2018.

Several sidewalk projects also are set for this summer. Not included on the map are sidewalk additions to two retail areas with heavy pedestrian traffic:

- Edina Industrial Boulevard between Metro Boulevard and Normandale Road
- Vernon Avenue from Arcadia Avenue to the southbound Minnesota Highway 100 ramp

Pedestrian crossing improvements will be made in these areas to increase safety:

- Doncaster Way at the entrance to Highlands Elementary School
- Valley View Road at the west entrance to Edina High School
- Xerxes Avenue at West 68th Street
- West 50th Street at Eden Avenue

Work also continues on the bike and walking paths of the Nine Mile Creek Regional Trail segments through Edina. That project is being constructed by the Three Rivers Park District.

Informational meetings were held in each neighborhood

1

Countryside G

Project manager: Engineering Technician Derek Northernscold, 952-826-0448

- Reconstruction of local concrete and bituminous streets
- Replacement of existing concrete curb and gutter
- Localized rehabilitation of the sanitary sewer, water main and storm sewer systems
- Construction of new concrete sidewalks

2

Birchcrest A/Countryside B

Project manager: Engineering Technician Mohamed Mohamed, 952-826-0444

- Reconstruction of local concrete and bituminous streets
- Replacement of existing concrete curb and gutter
- Localized rehabilitation of the sanitary sewer, water main and storm sewer systems
- Construction of more than one mile of new sidewalk connecting Tracy Avenue on the west side to the Minnesota Highway 100 frontage road on the east via Valley View Road and Maddox Lane

undergoing construction, explaining to residents what they can expect. People can expect dust, noise, construction equipment and supplies stored temporarily in yards, periodically inaccessible roads and driveways and other things that come with construction.

For more information regarding this year's street reconstruction and sidewalk projects, visit EdinaMN.gov/Engineering.

3

Chowen Park D

Project manager: Engineering Technician Derek Northernscold, 952-826-0448

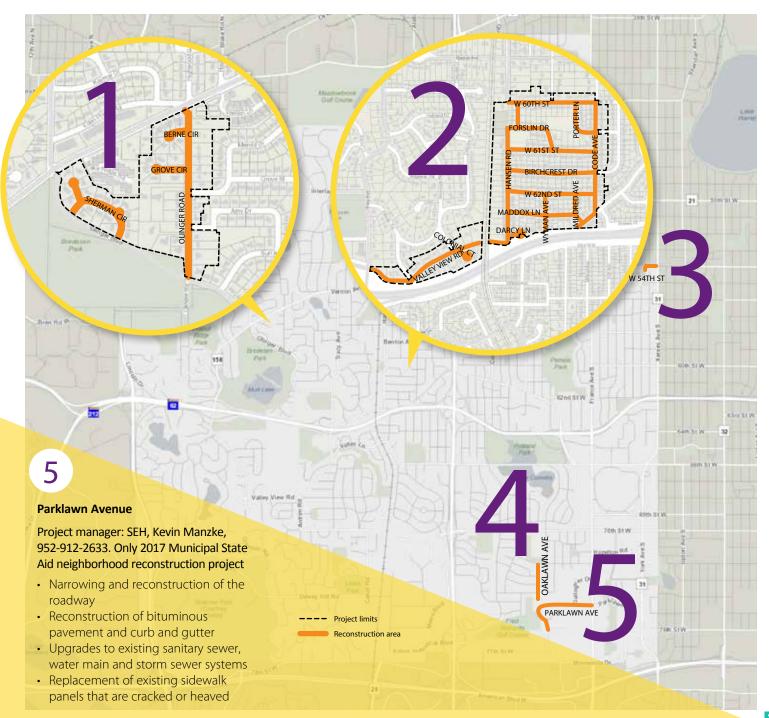
- Replacement of one of the last gravel streets in the city and work on two alleys
- Installation of concrete curb and gutter, new bituminous pavement
- Localized rehabilitation of the sanitary sewer, water main and storm sewer systems



Oaklawn Avenue

Project manager: Assistant City Engineer Carter Schulze, 952-826-0443

 Sidewalk addition from 72nd Street to Gilford Drive to be completed before school starts in the fall



2016 City of Edina Drinking Water Report

The City of Edina is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2016.

The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Source of Water

The City of Edina provides drinking water to its residents from a groundwater source: 18 wells ranging from 381 to 1,080 feet deep that draw water from the Mt. Simon, Jordan and Prairie Du Chien-Jordan aquifers.

The Minnesota Department of Health has made a determination as to how vulnerable our systems' source(s) of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view it online at www.health.state.mn.us/divs/eh/water/swp/swa.

Call 952-826-0312 if you have questions about the City of Edina drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

Results of Monitoring

The results contained in the following table indicate an exceedance of a federal standard. Some other contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2016. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Key to Abbreviations:

MCLG: Maximum Contaminant Level Goal:

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDL: Maximum Residual Disinfectant

MRDLG: Maximum Residual Disinfectant

AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

90th Percentile Level: This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only five samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

pCi/l: PicoCuries per liter: a measure of radioactivity.

ppb: Parts per billion, which can also be expressed as micrograms per liter (µg/l).

ppm: Parts per million, which can also be expressed as milligrams per liter (mg/l).

nd: No Detection

N/A: Not Applicable (does not apply)



			Level F	ound	
Contaminant (units)	MCLG	MCL	Range (2016)	Average/ Result*	Typical Source of Contaminant
Alpha Emitters (pCi/l)	0	15.4	4.4-6.5	6.5	Erosion of natural deposits.
Barium (ppm) (07/25/2013)	2	2	N/A	.14	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (pCi/l)	0	5.4	1.5-3.6	3.6	Erosion of natural deposits.
Fluoride (ppm)	4	4	.6167	.68	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
Haloacetic Acids (HAA5) (ppb)	0	60	2-2.8	2.8	Byproduct of drinking water disinfection.
TTHM (Total trihalomethanes) (ppb)	0	80	1.7-2.2	2.2	Byproduct of drinking water disinfection.
Vinyl Chloride (ppb)	0	2	nd3	.3	Leaching from PVC piping; Discharge from plastics factories.
cis-1,2-Dichloroethylene (ppb)	70	70	nd-5.9	5.45	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene (ppb)	100	100	nd15	.08	Discharge from industrial chemical factories.

^{*}This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

Contaminant (units)	MRDLG	MRDL	****	****	Typical Source of Contaminant
Chlorine (ppm)	4	4	.4-1.1	.8	Water additive used to control microbes.

^{****}Lowest and Highest Monthly Average. *****Highest Quarterly Average.

Contaminant (units)	MCLG	AL	90th Percentile Level	# sites over AL	Typical Source of Contaminant
Copper (ppm)	1.3	1.3	1.73*	5 out of 31	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)	0	15	.89	0 out of 31	Corrosion of household plumbing systems; Erosion of natural deposits.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Edina is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about

lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

*We are in exceedance of the action level for copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or

kidney damage. People with Wilson's Disease should consult their personal doctor. In response to this issue, we performed a corrosion control study and/or have taken actions to make the water less likely to absorb materials such as copper from your plumbing.

Monitoring may have been done for additional contaminants that do not have MCLs established for them and are not required to be monitored under the Safe Drinking Water Act. Results may be available by calling 651-201-4700 or 1-800-818-9318 during normal business hours.

Compliance with National Primary Drinking Water Regulations

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

Organic chemical contaminants,

including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

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The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Source of Water

The City of Minneapolis provides drinking water to its residents from a surface water source: surface water drawn from the Mississippi River.

The Minnesota Department of Health has made a determination as to how vulnerable our systems' source(s) of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call 651-201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view it online at www.health.state.mn.us/divs/eh/water/swp/swa.

Call 612-373-3000 if you have questions about the City of Minneapolis drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.

Results of Monitoring

No contaminants were detected at levels that violated federal drinking water standards. However, some contaminants were detected in trace amounts that were below legal limits. The table that follows shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2016. If any of these contaminants were detected the last time they were sampled for, they are included in the table along with the date that the detection occurred.)

Key to Abbreviations:

MCLG: Maximum Contaminant Level Goal:

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MRDL: Maximum Residual Disinfectant

MRDLG: Maximum Residual Disinfectant
Level Goal

AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.

90th Percentile Level: This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

ppm: Parts per million, which can also be expressed as milligrams per liter (mg/l).

oocysts: L–Oocysts/Liter, a measurement of the number of Cryptosporidium (or Giardia) spores.

ppb: Parts per billion, which can also be expressed as micrograms per liter (µg/l).

nd: No Detection

N/A: Not Applicable (does not apply)

TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.



			Level Found			
Contaminant (units)	MCLG	MCL	Range (2016)	Average/ Result*	Typical Source of Contaminant	
Cryptosporidium (oocysts/L)	N/A	N/A	nd3	N/A	Human and animal fecal waste.	
Fluoride (ppm)	4	4	.6672 .75		State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.	
Haloacetic Acids (HAA5) (ppb)	0	60	2.7-55.4	26.85	Byproduct of drinking water disinfection.	
Nitrate (as Nitrogen) (ppm)	10.4	10.4	N/A	.52	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	
TTHM (Total trihalomethanes) (ppb)	0	80	8.7-33.3	25.18	Byproduct of drinking water disinfection.	

^{*}This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants,

people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on

appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Contaminant (units)	MCLG	MCL	**	***	Typical Source of Contaminant
Turbidity (NTU)	N/A	TT			Soil runoff.

^{**}Lowest Monthly Percentage of Samples Meeting the Turbidity Limits. ***Highest Single Measurement.

Turbidity is a measure of the clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Contaminant (units)	MRDLG	MRDL	****	****	Typical Source of Contaminant
Chlorine (ppm)	4	4	2.6-3.6	3.33	Water additive used to control microbes.

^{****}Highest and Lowest Monthly Average. *****Highest Quarterly Average.

Contaminant	Unit	% Removal Required	% Removal Achieved	# of Quarters out of Compliance	Typical Source of Contaminant
Total Organic Carbon	% Removed	25-30%	55.2- 64.2%	0	Naturally present in the environment

Contaminant (units)	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper (ppm) (06/25/2015)	1.3	1.3	.08	0 out of 54	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (06/25/2015)	0	15	1.6	0 out of 54	Corrosion of household plumbing systems; Erosion of natural deposits.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Minneapolis is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours,

you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Monitoring may have been done for additional contaminants that do not have MCLs established for them and are not required to be monitored under the Safe Drinking Water Act. Results may be available by calling 651-201-4700 or 1-800-818-9318 during normal business hours.

Frequently Asked Questions

What is the hardness of Edina water and what level should I set my water softener to?

Edina water has approximately 18 grains of hardness. Set your softener to obtain 3 to 4 grains of hardness.

Why is my drinking water discolored?

Iron particles in the City's water sometimes cause discoloration from very light yellow to orange to a reddish-brown. Very small quantities of iron particles can change water color.

Many different things cause rust-colored water. Our water source is ground water, which contains iron along with other minerals. Most Edina pipes are made of cast iron, which reacts with chlorine to create rust. Iron particles can become loose in the water during hydrant flushing, Fire Department tests, water main breaks, switching from one filter plant to another (causing the water to flow in a different direction) and street sweeping with hydrant water.

The City chemically treats all municipal supply wells and 11 of 18 are additionally filtered for iron and manganese removal. The seven unfiltered wells are used during summer as demand increases. Because of this, there may be times when you notice yellow or reddish discoloration from iron. While the water is safe to drink, a taste or odor may be noticed. Running your cold water for a minute or two will typically allow the water to clear.

When my drinking water is discolored, is it safe to drink? To bathe in? To wash laundry? Will it permanently stain my fixtures?

Iron in the water is not pleasant looking and can have a "metallic" odor, but it is still well within safety standards set by the Environmental Protection Agency. If you feel uncomfortable drinking it, let the water run until it is clear.

The iron can stain your laundry, especially whites. A free product called Rover, which you can get at Edina City Hall or at the Public Works & Park Maintenance Facility,

Iron in the water is not pleasant looking and can have a "metallic" odor, but is still well within the safety standards set by the EPA.

can remove iron stains

from white laundry. It is best, though, to wait for the water to run clear before attempting to do laundry. Fixtures may also get discolored from iron.

I used to get a postcard telling me when you're flushing the hydrants. How am I going to know when you are flushing?

The costs of mass mailing are high. To save money, information is given to local media, posted on Edina TV, and online at EdinaMN.gov.

Hydrant flushing is done the last week of April and first week of May. In the fall, it is done the second and third weeks of September.

For more information, contact the Public Works Department, 952-826-0376 or EdinaMN.gov/PublicWorks.

- Compiled by Susan Waack

FLUSHABLE SHOULD NOT BE FLUSHED

By Lauren Siebenaler

Wet wipes have been a nightmare for the City of Edina's sewer systems for the last five years.

Terms like "biodegradeable," "flushable" and "sewer safe" have been stamped on the sides of the packages claiming there is no harm in putting them down the toilet. Out of sight, out of mind, right? But once they are in the sewer system, they create headaches for City crews.

"People see 'biodegradable' or 'environmentally friendly' and think that it's safe to put down the toilet," said David Goergen, Edina Public Works Coordinator. "Toilet paper is engineered to break down in water, but wipes are not. One wipe can get hung up on an imperfection in a pipe and just like clotting blood cells, they start to gather. It's very labor intensive because crews have to physically remove them; they can't add chemicals or bugs to them to eat them up. Baby wipes, sanitary wipes, disinfecting wipes, dusting and mopping wipes are good products and serve their purposes, but they are not meant to be flushed into our system. They cause nothing but problems."

More than a dozen Edina residents experience a sewer backup every year. Sewage backups can cost anywhere from hundreds of dollars to hundreds of thousands of dollars. A lot goes into the cleaning and replacement of finished

basements, and it can take months to fix the damage, too.

Flushing wipes can not

only affect you, but it can cause sewage to back up into neighbors' houses. The sewer infrastructure was not designed to handle wipes, and some neighborhoods can be affected in different ways. The City's machinery can break down due to wipes, too, which causes more maintenance, labor and money to fix.

"Sanitation is based on gravity.

Everything flows downhill until the point where it can't flow downhill anymore," said Goergen. "Then, we collect it in wet wells and pump it up to an elevation where it can flow by gravity again. So when wipes get in these lift stations,

it binds up the pumps. They don't cut anymore; they mash and get knotted up. Then, the pumps overheat because they can't spin anymore. Not pumping that sewage makes the sewage back up the line and cause problems. That's where

"Toilet paper is engineered to break down in water, but wipes are not. One wipe can get hung up on an imperfection in a pipe and just like clotting blood cells, they start to gather."

residents would notice it; the lowest elevation will start to get a backup."

Utility Operator Nate Behlen is the first City contact for sewer backups. He is on the scene of a backup and assesses the situation, usually finding out the homeowner uses wipes for cleaning or sanitary reasons.

"If we're seeing each other, it's a bad day for both of us. You don't want me at your doorstep," said Behlen. "I show up to these backups and the residents are so angry at me. They'll take out the frustration of a backup on me, especially when it's in our line. I tell them right

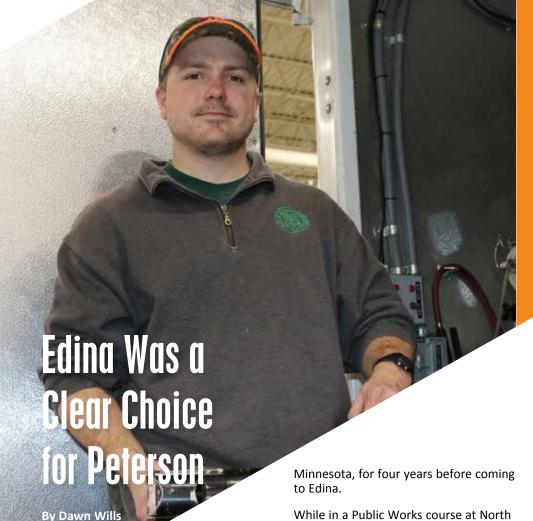
away, 'I can almost guarantee you we're going to find these wipes.' And I see a lightbulb go off in their mind like, 'Oh, I do that.'"

Goergen and Behlen have first-hand experience of the so-called flushable wipes. Their hope is to educate residents on the damage wipes can cause to neighborhoods. They have gone so far as to knock on doors to warn residents of the uptick in wipes in their sewer pipes. Some residents might not be aware of the flushed wipes coming from their houses because cleaning crews and hired cleaners may be the ones flushing them. Having conversations about the wipes

with hired help and neighbors can ensure a backup won't take place in your home.

"I take it serious; it's my job. Even when it's not my fault, I feel badly," said Behlen. "I feel bad that it's causing damage to these homes and everything. So the key is educating people."





"The sewer is a big part of the City's infrastructure. It doesn't sound fancy, but it's a major deal."

While in a Public Works course at North Hennepin Community College, Peterson met some Edina Public Works employees who told him about a job opening in their department.

"In Newport, I was kind of a jack-of-alltrades in Public Works," said Peterson. "It was time for me to go after a specific water or wastewater job."

Peterson stood out from the other candidates for the Edina job and began work in February.

"Nate is very personable and he has a good knowledge base of a city's infrastructure," said Gary Wells, Utilities Supervisor. "With that knowledge base, he fits into our operation nicely."

"Here in Edina, everyone has a specific role," Peterson said. "My one thing is televising the sewer." Peterson uses a camera to scope the sanitary sewer main, looking for any cracks, spaces between the joints or roots.

Peterson says the best time to get a camera in these sewer pipes is when there is major construction on the street. But he can also access the sanitary and storm sewer line from street level. through the manholes. From Peterson's recordings, engineers can determine if the pipe needs to be fixed or replaced.

Peterson is currently involved in the inspection and video recording of the lines for the 2018 road reconstruction projects.

"The sewer is a big part of the City's infrastructure," said Peterson. "It doesn't sound fancy, but it's a major deal."

For more information, contact the Public Works Department at 952-826-0376.

Whenever someone takes a shower or flushes a toilet, the resulting wastewater is carried through a pipe off the property into the City's sanitary sewer system.

Recently hired Public Service Utility Worker Nate Peterson monitors the sewer pipes in Edina. A St. Cloud Technical Community College graduate in water environment technologies, Peterson worked for Newport,